Purpose: It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

Course Title - Residential Air Conditioning
Course Prefix and Number - HART 1341
Department - Air Conditioning, Heating, Refrigeration and Electrical Technology
Division – Vocational Science

Course Type: (check one)
☑ Academic WCJC Core Course
☐ Academic General Education Course (from ACGM – but not in WCJC Core)
☐ WECM course (This course is a Special Topics or Unique Needs Course: Y ☐ or N ☑)

Semester Credit Hours #: Lecture hours#: Lab/other hours# 3:2:4
EQUATED Pay hours for course - 4

Course Catalog Description - A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.

Prerequisites/Co requisites - None
I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

- system applications
- sequence of operation
- charging procedures
- part diagnostics

II. Course Learning Outcomes

<table>
<thead>
<tr>
<th>Course Learning Outcome</th>
<th>Method of Assessment</th>
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<tr>
<td>(1) Demonstrate systems applications</td>
<td>1) Classroom quiz and examination questions, and lab exercises.</td>
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<tr>
<td>(2) Implement and demonstrate industry accepted refrigerant charging procedures</td>
<td>2) Classroom and lab exercises, quiz and examination questions</td>
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<tr>
<td>(3) Demonstrate air conditioning system installation procedures</td>
<td>3) Classroom and lab exercises, quiz and examination questions</td>
</tr>
<tr>
<td>(4) Demonstrate component and part diagnostics and replacement</td>
<td>4) Classroom and lab exercises, quiz and examination questions</td>
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III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

- Refrigeration & Air Conditioning Technology, 5th Ed.
- Supplemental: Various articles from HVAC/R industry trade periodicals.
- Optional: Practical Competencies: A HVAC/R Lab Book.

Supplies: A 10+ function scientific calculator, and a pair of clear lens safety glasses.

IV. Suggested Course Maximum - 35

V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.

- Classroom and lab, CAT software, A-V equipment, blackboard, electrical devices (working and non-working), meters and tools.
VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course

**Testing:** Testing will be provided in a wide variety of styles. Objective questions may be multiple choice, matching, fill in the blank, short statement, or True/False. The weight, scale, and nature of the specific questions are left to the discretion of each instructor. Likewise, the use of the “daily quiz” will be at the instructor’s discretion.

**Grading:** The grading scale for all paper tests will be in accordance with the WCJC catalog. The grading scale for all lab assignments will be pass/fail and will reflect in your daily mark. The daily mark is an average of attendance, attitude, and aptitude. It is rated: A = 100%, B = 75%, C = 50%, D = 25%, F or absence = 0%. Up to three extra points will be added to your final grade for 90%+, class attendance, and homework written assignments.

VII. Curriculum Checklist

☐ - Academic General Education Course (from ACGM – but not in WCJC Core)
  No additional documentation needed

☐ - Academic WCJC Core Course
  Attach the Core Curriculum Checklist, including the following:
  • Basic Intellectual Competencies
  • Perspectives
  • Exemplary Educational Objectives

☒ - WECM Courses
  If needed, revise the Program SCANS Matrix & Competencies Checklist.